

of the Cambridge Philosophical Society an important paper on "The Inequality of Long Period in the Motions of the Earth and Venus." He wrote for the British Association in 1832 a most useful "Report on the Recent Progress of Astronomy," and in 1833 prepared valuable papers on "The Mass of Jupiter."

When Mr. Pond, the sixth Astronomer-Royal, resigned his office in 1835, Lord Auckland, the First Lord of the Admiralty, appointed Prof. Airy to be his successor; and on January 1, 1836, the new Astronomer-Royal entered upon his duties. This was a position which accorded in all respects with Prof. Airy's wishes, and in the course of the long period during which he held it he not only maintained, but greatly increased, the fame of the Royal Observatory at Greenwich as one of the most important centres of astronomical investigation. To him the Royal Observatory owed its equipment with a series of new instruments, all of which were made from his designs, while some were of his own invention. The first of these instruments—the altazimuth—was set up in 1847, the object of the instrument being to secure that observations out of the meridian should be as accurate as observations in the meridian. The erection of this instrument led to results of much importance and interest in the observation of the moon. Other instruments erected were a new meridian-circle, the reflex-zenith-tube (put in the place of the Troughton zenith-sector), a new equatorial, an instrument planned to decide the question of the dependence of the measurable amount of sidereal aberration upon the thickness of the glass or other transparent material in the telescope, a double-image micrometer, and an orbit-sweeper, designed for the detection of comets approaching perihelion passage, the time of which cannot be exactly fixed.

The observations were made at Greenwich with perfect regularity, reduced most carefully, printed, and placed at the disposal of all who were capable of using them. We need scarcely say that they are of enormous value to astronomers.

The reduction of the Greenwich lunar and planetary observations from 1750 had been proposed to astronomers by Bessel as a task well worthy of serious effort. It was undertaken by Airy in 1833, and completed in 1848; and, as we have stated in our previous article, the reductions thus effected serve as the basis of the greater part of our present tables of the motions of the moon and the planets. He reduced various other series of observations, and by his untiring activity stimulated competent students, both in England and elsewhere, to undertake kindred work. He also gladly undertook labours which were in other ways fitted to advance astronomical science. In 1842 he went to Turin to observe the total solar eclipse, and he went for a similar purpose to Gothenburg, in Sweden, in 1851. The eclipse expedition to Spain in 1860 was organized by him, and to his care was intrusted the equipment of the British expedition for observing the transit of Venus in 1874.

Soon after his appointment to the position of Astronomer-Royal, Airy proposed to the Government that magnetical and meteorological observations should be made at Greenwich; and in 1838 his scheme was adopted, the result being that a vast number of data have since been accumulated. We need only refer to such work as his useful experiments on the deviation of the compass in iron ships; his researches on the density of the earth by observations in the Harton Colliery; and his investigations in connection with the standards, the fixing of the breadth of railways, and the introduction of a new system for the sale of gas.

His scientific eminence secured for him the position of President of the Royal Society, which he held from 1871 to 1873. He became a C.B. in 1871, and a K.C.B. in 1872. He was medallist of the French Institute, of the Royal Society (twice), of the Royal Astronomical Society

(twice), and of the Institution of Civil Engineers. The Paris Academy of Sciences made him one of its eight "Associés étrangers," and he was an honorary member of many scientific Societies both at home and abroad.

Among the works of Sir George Airy is a little book entitled "Popular Astronomy," which has passed through many editions. He was also the author of "Treatise on Errors of Observation," "Treatise on Sound," "Treatise on Magnetism"; and of contributions to the "Penny Cyclopædia" and the "Encyclopædia Metropolitana," on such subjects as "Gravitation," "Trigonometry," "Figure of the Earth," and "Tides and Waves."

NOTES.

MEN of science were much pleased to learn on New Year's Day that a peerage of the United Kingdom had been conferred on Sir William Thomson. This is the second time Lord Salisbury has done honour to a President of the Royal Society, and on both occasions the wisdom of his action has been very generally appreciated. The work of men like Sir George Stokes and Sir William Thomson brings with it, of course, its own reward; but it is good for the nation that the value of their services should be officially and adequately recognized.

THE following will be the Presidents of Sections at the Edinburgh meeting of the British Association:—Mathematics and Physical Science, Prof. Arthur Schuster; Chemistry and Mineralogy, Prof. Herbert McLeod; Geology, Prof. Charles Lapworth; Geography, Prof. James Geikie; Economic Science and Statistics, the Hon. Sir C. H. Freemantle; Mechanical Science, Prof. W. C. Unwin; Biology, Prof. W. Rutherford; Anthropology, Prof. Alexander Macalister.

THE Institution of Electrical Engineers will hold the first of its meetings during the current year on Thursday, the 14th inst., when the President, Prof. W. E. Ayrton, F.R.S., will deliver his inaugural address.

AT a Congregation held at Cambridge on Monday, the Duke of Devonshire was elected to the Chancellorship of the University, without opposition, in succession to his father. The formal installation will take place in the Easter term.

THE general meeting of the Association for the Improvement of Geometrical Teaching is to be held at University College, Gower Street, on Saturday, January 16. At the morning sitting (11 a.m.), the reports of the Council and the Committees will be read, and the new officers will be elected. After an adjournment at 1 p.m., members will reassemble for the afternoon sitting (2 p.m.), at which the following papers will be read:—On Laguerre's dictum concerning direction, by Prof. R. W. Genese; on the geometrical interpretation of fallacy in elimination, by Prof. R. W. Genese; on the use of Horner's method in schools, by Mr. E. M. Langley. All interested in the objects of the Association are invited to attend.

DR. RICHARD PFEIFFER, the son-in-law and assistant of Prof. Koch, and head of the Scientific Department of the new Royal Institute for Infectious Diseases, has, it is stated, discovered the influenza bacillus. Full particulars are to be published shortly. Meanwhile, according to a Reuter's telegram, it is already known that "six attempts at transplantation of the microbe have been made, and have been attended with complete success, thus proving the genuine character of the discovery."

THE International Sanitary Conference met at Venice on Tuesday. This is the sixth occasion on which the Conference has assembled. Its first meeting was held at Paris in 1851. This was followed by gatherings at Constantinople in 1860, at Vienna in 1874, at Washington in 1881, and at Rome in 1885.

THE New Year's address to the members of the Sanitary Inspectors' Association was delivered on Saturday last by Dr. B. W. Richardson, F.R.S., the President. He offered them the congratulations which, he said, they deserved to receive from everybody who was interested in the cause of sanitation on the immense advance which they, as sanitarians, had made during the past year. They occupied a better position in the public estimation than they ever did, and they stood on a firmer foundation from the circumstance that the Board of Trade had given them permission to enrol themselves as a Society limited by guarantee, which really was the same as if they were incorporated. By that progress they had gained a step which placed them in a most enviable position. It was very rarely that any Society so young as theirs received such a public recognition in so short a time. They were now practically a professional body, such as existed in the Church, the law, and physic.

THE eighth of the series of One Man Photographic Exhibitions at the Camera Club is now being held. It consists of photographs by Mr. J. Pattison Gibson. The pictures will be on view for about six weeks.

A SCIENTIFIC Commission has been appointed by the Government of Costa Rica for the investigation of various classes of phenomena in that country which have hitherto been inadequately studied. The Commission consists of Prof. H. Pittier, who acts as Director, Luis Chable, who offered his services for archæological research, G. K. Cherrie, zoologist, and A. Tonduz, botanist.

THE organizing joint committee of the Essex County Council and the Essex Field Club have issued syllabuses of courses of instruction in several subjects, in addition to those to which we lately referred. Mr. J. T. Cunningham, of the Marine Biological Laboratory, Plymouth, is to lecture on the natural history of marketable sea-fishes, and on oysters and oyster-culture. Mr. H. N. Dickson will give three courses of lessons on elementary practical meteorology for fishermen, farmers, and sailors.

IN order to determine the local distribution and altitude of the aurora, a considerable number of observers is necessary, so distributed throughout the area covered by the observations as to secure as full information as possible with regard to the extent to which the aurora is present or absent. To aid and increase the number of observers in this field Mr. M. A. Veeder has issued some blanks and a circular, and he says:—"It is desirable to have as many observers as possible co-operate in the plan described in the accompanying circular and blanks. Auroras are likely to become more frequent during the coming year, affording a special favourable opportunity for systematic observation." It is stated in the instructions that the chief observations required are the time and zenith distance of all the prominent features. If only a single observation can be made each evening, the best hour for it is between 9 and 10 o'clock p.m. Observers must remember that in a case like this "every little helps," and the results that have been already obtained warrant the belief that by concerted effort information of practical value may be secured.

AT the meeting of the French Meteorological Society on Dec. 1 last, M. Angot presented the results of temperature observations made during the year 1890 on the Eiffel Tower at 515 feet, 646 feet, and 990 feet above the ground. During the night, the temperature increases up to a mean height of about 500 feet, then decreases, slowly at first, and afterwards more rapidly; at about 1000 feet the mean decrease of temperature is about $1^{\circ}4$ per 328 feet (100 metres). During the day, the temperature decreases constantly from the ground upwards; in the lower strata the decrease is slower in winter than in summer. In the

latter season it amounts to $2^{\circ}5$ per 328 feet; but above 500 feet the rate of decrease does not show a decided annual variation; the amount is about $1^{\circ}6$ per 328 feet. It is worthy of remark that at a height of 984 feet (300 metres) in open air, the decrease of temperature is extremely rapid, both during the night and during the day, and nearly approaches the theoretical value of the law of the adiabatic expansion of gases. M. L. Teisserenc de Bort gave an account of Dr. Hildebrandsson's observations on the motions and heights of clouds. A study of their direction showed that, first, the air which moves in a spiral towards the centre of a depression, having attained a considerable height, moves away from the centre and converges towards the centres of the maxima, and redescends towards the earth by a centrifugal motion. Second, in the northern hemisphere, the direction of an upper wind is always somewhat to the right of that of the lower wind. Thirdly, the mean direction of the upper currents is from west to east in temperate regions, and in the opposite direction in tropical regions. Dr. Hildebrandsson has also published charts of the direction of cirrus clouds, accompanied by theoretical isobars at an altitude of 4000 metres, as proposed by M. Teisserenc de Bort, which show that the motions of the cirrus are quite in accordance with those isobars.

IN the *Anales* of the National Geographical Institute of Costa Rica, vol. iv., Señor H. Pittier has published the results of meteorological observations made at San José during 1889, together with a summary of rainfall and earthquake observations for the years 1866-80. These observations are valuable, as data from Central America are scanty. A comparison of the rainfall curve with the earthquake phenomena shows that the greater number of shocks occur in the months of maximum rainfall—viz. in May and September.

AT a recent meeting of the Chemical Section of the Franklin Institute, Philadelphia, a letter from Mr. M. Carey Lea was read, transmitting to the Section the gift of a collection of his published papers on allotropic forms of silver and a set of specimens of the various modifications of the element which he had prepared. These specimens are greatly valued by the members of the Section.

A VERY large part of the literature of experimental psychology is taken up with the discussion of the psychophysical measurement-methods; and in many cases the psychological question at issue has been lost sight of, in the interest of the methods themselves. One of these, which has been the subject of a good deal of controversy—the method of double stimuli—is finally discredited by Prof. F. Angell in the new part of Wundt's *Philosophische Studien*. Prof. Angell's experimental results are especially interesting, on the positive side, in their relation to Weber's law. Two other articles in the number contain valuable experimentation. Dr. G. Martius proves the erroneousness of the common opinion that there goes along with increasing intensity of a simple clang a continuous decrease of the length of the time of reaction to it. For practised and attentive reagents the time remained the same, within wide differences of stimulation. Dr. A. Kirschmann tabulates the results of his photometric determination of the relations which obtain between "dark" and "light" surfaces, in respect of brightness. It is pointed out that such results furnish in one direction a criterion for art-criticism.

MR. C. J. MURPHY, who has been charged by the U.S. Agricultural Department with the introduction of Indian corn as a human food into Europe, has made a report to Secretary Rusk on his work in Great Britain. In it he reviews the conditions which seem likely to encourage the use of this cereal food in Great Britain and other parts of Europe. Secretary Rusk has caused to be prepared for publication, in conjunction with Mr. Murphy's report, a chapter upon the value of maize as food,

by Dr. H. W. Wiley, chief chemist of the Department, in which are shown the chemical composition of maize, and its relative value for food purposes in comparison with other cereals. There is also a chapter, prepared by the assistant statistician, Mr. B. W. Snow, under the direction of the statistician, offering some additional observations as to the possibility of extending the use of this cereal among the people of Europe as a human food, and presenting a number of statistical tables showing the yield and value of the American corn crop.

AN important *Bulletin* on the forest and mineral wealth of Brazil has lately been issued by the Bureau of the American Republics. The forests of Brazil abound in woods of great value, some of the finest of which are said to be entirely unknown in Europe. With regard to mineral resources, Brazil is not less fortunate. Scientific explorers have found great deposits of coal and iron, and have also proved that the country possesses copper, manganese, and argentiferous lead ore. There are also mines of gold and diamonds. Diamonds are co-extensive with the gold deposits, and, like that metal, are most abundant in Minas Geraes, where they have been found since 1789. The most important locality known for the production of these gems is the district of Diamantina, in the above-named State. They are found in Parana, in the gravels of the River Tibagy, and in the bed of streams dry during the summer. Since the discovery of diamonds at the Cape of Good Hope, the Brazilian production has greatly diminished. As regards iron, the State of Minas Geraes abounds with it. It is not found in veins or strata, buried deep in the earth, but in enormous beds, often lying at the surface, or in mountain masses. These vast deposits are worked only by small scattered furnaces, charcoal being used in the reduction of the ore. Of these small furnaces there are five groups, producing about 3000 tons annually, the product being used in the surrounding districts in the manufacture of articles of home consumption, such as hoes, shovels, picks, drills, nails, horseshoes, &c. In the State of San Paulo are found deposits similar to the best Norwegian ore; and one of the mines is worked by the Government establishment near the village of Sorocaba. This establishment has two furnaces, and produced in one year about 790 tons of pig-iron. The ore has about 67 per cent. of iron. In Santa Caterina, not far from a harbour accessible to the largest vessels, are vast deposits of hæmatite, containing, on an average, 30 per cent. of manganese, and 20 to 30 per cent. of iron. In the State of Goyaz, as in Minas Geraes, are found enormous masses of the ore itabberite.

PROF. GEORGE H. WILLIAMS contributes to the latest of the Johns Hopkins University Circulars an interesting account of a geological excursion in Maryland by students of that University in May 1891. The land area of Maryland is approximately 10,000 square miles, which may be in round numbers divided between the three topographically and geologically distinct provinces as follows: (1) *Central Maryland*, called the Piedmont Plateau, with 3000 square miles between the Catoclin Mountain on the west and a line drawn from Washington to Wilmington on the east, exhibits a gently rolling country of moderate elevation and relief. This is composed of the most ancient and contorted rocks—highly crystalline toward the east, and semi-crystalline toward the west. (2) *Western Maryland*, or the Appalachian Mountain province, embracing the 2000 square miles west of Catoclin Mountain. This region is formed of the entire sequence of Palæozoic strata thrown into a series of regular folds or undulations. (3) *Eastern and Southern Maryland*, belonging to the coastal plain, has about 5000 square miles of undisturbed and unconsolidated strata, in nearly horizontal position, and representing the accumulations from the Jurassic to the present. In the course of each year an effort is made to give students of geology at the Johns Hopkins

University a practical acquaintance with the petrography, palæontology, structure, and topography of each of these three provinces by a series of excursions which are conducted exclusively for this purpose. In the excursion in May the route of the party lay along the section through the Appalachian Mountains exposed by the gorge of the Potomac River.

IN the new number of the *Internationales Archiv für Ethnographie* there is a learned and well-arranged paper, by C. M. Pleyte, on the use of the sumpitan and bow in Indonesia. A line may be drawn passing over Flores, to the east of Mangarai and Buru, to the west of Halma-Lera, and to the east of the Philippines, exactly marking the limit of the use of the bow. To the east of this line the bow is in general use, while to the west it is found only sporadically. A second line traced westward of Sumba, eastward of Sumbawa, to the south and east of Celebes, and to the east of the Philippines, marks the limit of the use of the sumpitan, which is found nowhere to the east of it. Between these two lines—on the islands of Sumba, West Flores, Saleyer, Buton, Buru, the Sula Islands, the Banggai Archipelago, and the Sangi and Talaut Islands—neither sumpitan nor bow are known. The author points out that these two limits correspond very closely with the line accepted by Dr. Brandes, separating the eastern from the western branch of the Malayo-Polynesian languages. It appears, therefore, that those natives who use the sumpitan form one family in point of language, and that the like is the case with those who use the bow.

DR. R. W. SHUFELDT contributes to the Proceedings of the U.S. National Museum two interesting prints of Havesu-pai Indians. The prints are reproductions of photographs which were taken several years ago by Mr. B. Wittick, formerly a photographer in the employment of the U.S. Geological Survey. The Havesu-pais live in one of the grandest cañons in Arizona, occupying their primitive lodges along the bank of the stream that passes through it. They are a dying race, and very little is known about them. The styles of their lodges are well shown by Dr. Shufeldt's plates, which also display the varied costumes of the men, women, and children, and the peculiar forms of their baskets. The fashion in which the hair of the women and girls is "fixed" seems to point to affinities between the Havesu-pai and the Pueblan Indians.

IN the new number of *Insect Life*, Dr. C. V. Riley directs attention to what he calls a new herbarium pest. In September 1890, a number of small Geometrid larvæ were found by the botanists of the U.S. Department of Agriculture infesting certain dried plants in the Department herbarium, and especially those which had been received from Mexico and Lower California. The fact that the insect has appeared on dry plants from the comparatively arid western regions may, Dr. Riley thinks, furnish a clue to its original habit. It would seem possible, if not probable, that it normally feeds on the dead or dry plants of Mexico and adjacent arid regions, and that it has simply adapted itself to the somewhat similar conditions prevailing in herbaria. It is a new species, and for the present may be placed in the *Acidaliinæ*.

MR. W. VERNER writes to the current number of the *Zoologist* that the Kentish plover, like the stone curlew, or thickknee, is being rapidly exterminated in the county from which it derives its name, by collectors and so-called "naturalists," who, with walking-stick guns, in and out of season, destroy all they can approach. "These gentry," says Mr. Verner, "do more harm even than they imagine, for I have come across many small plovers and other birds which have been ineffectually 'peppered,' and have gone away to die. Still oftener I have found nests of the ringed and Kentish

plovers which have been trampled on by these uncouth marauders in their clumsy and ever eager attempts to 'annex' everything they can in the least possible time." The editor of the *Zoologist* pertinently asks why the Wild Birds Protection Act is not put in force.

AT the meeting of the Linnean Society of New South Wales on November 25, Mr. Fred. Turner exhibited specimens of *Telopea oreades*, F. v. M. (narrow-leaved form), the Victorian Waratah, collected at the Fitzroy Falls, N.S.W., the most northern habitat yet recorded for the plant; said to be very rare. Also three fungus-smitten grasses from the interior: *Eriochloa bunclata*, Hamilt., *Panicum Mitchellii*, Benth. (two valuable pasture grasses—in the case of the second of these the first occasion on which he had seen fungoid growth on it), and *Aristida ramosa*, R.Br., one of the "three awned spear grasses," a noxious plant. To the presence in fodder of parasitic fungi such as these, the fact that many sheep died so mysteriously at times was, Mr. Turner thought, sometimes possibly attributable.

MESSRS. WHITTAKER AND CO. have made arrangements with the editor of *El Telegrafista Español* for the translation into Spanish of Mr. Preece's work upon "The Telephone." The book has already been translated into French and German. The same firm will publish shortly, in a cheap form, Mr. A. R. Bennett's papers on the telephoning of great cities and the electrical parcel exchange system.

WE are glad to welcome the first number of *The Annals of Scottish Natural History*, a quarterly magazine, with which is incorporated *The Scottish Naturalist*. It is edited by J. A. Harvie-Brown, J. W. H. Trail, and W. E. Clarke, and published by David Douglas, Edinburgh. The periodical ought to play an important part in stimulating the study of natural history in Scotland.

AN important botanical work has been planned by T. Durand, *aide-naturaliste* at the Botanic Gardens of Brussels, and H. Schinz, *privatdozent* at the University of Zürich. It is entitled "Conspectus Floræ Africæ," and will be published (by subscription) in six volumes.

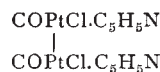
THE Botanical Society of Edinburgh prints, in the latest instalment of its Transactions and Proceedings, a capital "preliminary notice" of the Pilcomayo Expedition, by Mr. J. Graham Kerr, naturalist to the Expedition. Mr. Kerr gives a short sketch of the Expedition itself, and then presents a summary of the more striking botanical features of the region traversed by it.

MESSRS. J. AND A. CHURCHILL have published the "Year-book of Pharmacy," comprising abstracts of papers relating to pharmacy, materia medica, and chemistry, contributed to British and foreign journals from July 1, 1890, to June 30, 1891. The volume also contains the transactions of the British Pharmaceutical Conference at the twenty-eighth annual meeting, held at Cardiff, August 1891.

MESSRS. DULAU AND CO. have issued a catalogue of geological works which they offer for sale. The works relate to crystallography, mineralogy, mining, petrography, boulders, caves, vulcanology, water, &c.

SEVERAL new compounds of carbonyl platinum chloride and bromide with ammonia derivatives are described by Dr. Foerster in the current number of the *Berichte*. An account of the interesting carbonyl platinum compounds was given in NATURE,

vol. xliv. p. 530, on the occasion of the publication by Drs. Foerster and Mylius of the results of their investigation concerning them. They were first obtained in 1868 by Schutzenberger by heating spongy platinum first in a stream of chlorine and afterwards in a current of carbon monoxide. The most stable and best investigated of these substances is the compound COPtCl_2 . It is a crystalline substance possessing a somewhat basic character. The crystals readily dissolve in concentrated hydrochloric acid, forming the hydrochloride $\text{COPtCl}_2 \cdot \text{HCl}$. Nevertheless, the substance appears capable of combining with ammonia or its derivatives, for Schutzenberger obtained a compound, to which he assigned the formula $\text{COPtCl}_2 \cdot 2\text{NH}_3$, by passing ammonia gas through a solution of carbonyl platinum chloride in carbon tetrachloride. As this ammonia compound does not readily lend itself to accurate analysis, Dr. Foerster determined to prepare a compound with a base such as aniline or pyridine, which would probably form crystals more capable of thorough investigation. For this purpose he chose the base pyridine, $\text{C}_5\text{H}_5\text{N}$. He finds that carbonyl platinum chloride does not combine with two, but with one molecule of the base, to form the compound $\text{COPtCl}_2 \cdot \text{C}_5\text{H}_5\text{N}$. This result is all the more satisfactory, inasmuch as Zeise has shown that the compound ethylene platinum chloride, $\text{C}_2\text{H}_4\text{PtCl}_2$, forms an analogous compound with one molecule of ammonia of the composition $\text{C}_2\text{H}_4\text{PtCl}_2 \cdot \text{NH}_3$. The new compound with pyridine, $\text{COPtCl}_2 \cdot \text{C}_5\text{H}_5\text{N}$, is a crystalline substance possessing basic properties, combining with hydrochloric acid to form the hydrochloride, $\text{COPtCl}_2 \cdot \text{C}_5\text{H}_5\text{N} \cdot \text{HCl}$. Another new compound is obtained from the hydrochloric acid solution by the addition of more pyridine dissolved in alcohol, crystallizing out upon allowing the solution to stand a short time. When recrystallized from alcohol, this second compound is obtained in fine greenish-yellow crystals. Its empirical composition is $\text{COPtCl}_2 \cdot \text{C}_5\text{H}_5\text{N}$, but its molecular composition is probably represented by the double formula—



Water instantly decomposes it. In a similar manner two analogous compounds containing bromine have been obtained. The first of these, $\text{COPtBr}_2 \cdot \text{C}_5\text{H}_5\text{N}$, crystallizes in yellow tabular or acicular prisms, melting at the temperature, very low for a platinum compound, of 78° . The second compound, $(\text{COPtBr})_2(\text{C}_5\text{H}_5\text{N})_2$, is distinguished by its difficult solubility, only chloroform dissolving it in sufficient quantity for the purpose of recrystallization.

IN addition to the above compounds with pyridine, an interesting compound with phenylhydrazine has been obtained, $\text{COPtCl}_2 \cdot \text{C}_6\text{H}_5\text{N}_2\text{H}_3$, in fine crystals. The hydrochloride of this compound, $\text{COPtCl}_2 \cdot \text{C}_6\text{H}_5\text{N}_2\text{H}_3 \cdot \text{HCl}$, has also been prepared; it forms remarkably beautiful orange-coloured crystals. Indeed, it appears highly probable that hydrazine itself, N_2H_4 , would be found to combine with these carbonyl compounds of platinum in a manner similar to ammonia and its derivatives.

THE additions to the Zoological Society's Gardens during the past week include a Diana Monkey (*Cercopithecus diana* ♀) from West Africa, presented by Mrs. R. Godfrey; a Rough-eyed Cayman (*Alligator sclerops*) from South America, presented by Mr. Charles Taylor; four Mississippi Alligators (*Alligator mississippiensis*) from South Carolina, presented by Mr. W. S. Copleston; four Gouldian Grass Finches (*Poephila gouldiae*), two Crimson Finches (*Estrela phaeon*) from Australia, purchased; four Beautiful Grass Finches (*Poephila mirabilis*) from Australia, purchased.